



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

vel etiam ad foramen annulare, quale ambit circellum Newtonianum Corollariis ultimis *Prop.* XXXVI. *Libr.* II. *Princip.* adhibitum, unde in Resistentia fluidorum continuorum ex hujus circelli contemplatione deducta plura videntur mutanda; quod in antecessum eruditos monere visum est, quo eos ad accuratius præcedentium examen excitarem.

## II. *A Collection of the Observations of the Eclipse of the Sun, August 4<sup>th</sup> 1738. which were sent to the Royal Society.*

I. *An Eclipse of the Sun, observed August the 4<sup>th</sup> 1738. by Mr. George Graham and Mr. Short, FF. R. S. at Mr. Graham's House in Fleetstreet, London, by a Refracting Telescope of 12 Feet Focus, armed with a Micrometer, and by a reflecting Telescope of nine Inches focal Length.*

	h.	'	"	
Beginning of the Eclipse at	9.	59.	20	A. M.
End at . . . . .	11.	59.	36	
Quantity of Obscuration by }	dig.	min.		
the Micrometer . . }	3.	28.		
	h.	'	"	
Duration . . . . .	2.	0.	16	

*N. B.* The Person who was observing the Transit of the Sun over the Meridian, observed the End to be at the same Instant with the above Observation.

2. *Eclipsis Solis, Tubo 7 ped. Micrometro D. Grahami instructo, d. 4 Aug. paulo post meridiem 1738. Upsaliæ observata à D<sup>no</sup>. Andrea Celzio, R. S. Lond. S. & R. S. Suec. Secr.*

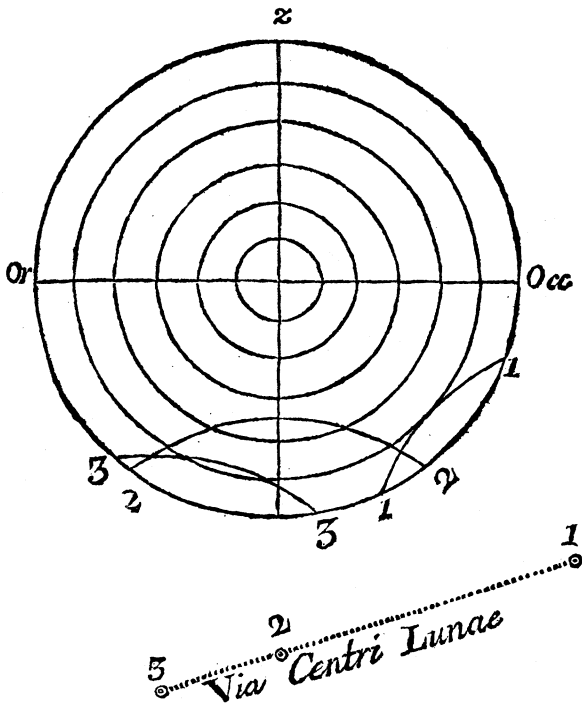
Temp. ver.					
h.	'	"			
12.	18.	52	.	.	Initium eclipseos.
12.	35.	57	.	.	Dig. eccl. o. $5\frac{2}{3}$
12.	37.	47	.	.	o. $3\frac{1}{2}$
12.	42.	22	.	.	Finis.
0.	23.	30	.	.	Duratio.

Propter nubes per vices solem obtegentes maximam obscurationem & ceteras eclipseos phases observare non licuit; maximum tamen solis defectum dig. o. 8' h. 12. 30' 37" accidisse ex hisce observatis deducitur.

3. *Tres Phases Eclipseos Solis partialis Vitembergæ die xv. Augusti St. N. iv. St. Vet. anno MDCCCXXXVIII. à Jo. Frid. Weidlero, R. S. Lond. Sodal. observatæ.*

**E**T si propter nubes, quibus tum cœlum involvebatur, nec initium, nec finis deliquii spectari potuerit, apparuerunt tamen, distractis subinde venti impetu nubibus, Phases sequentes;

Hor.



Hor. Min.

11. 30. Notata est phasis prima deliquii crescentis, 1 digit.  
 12. 19. *p. m.* visa est phasis altera 2 digit. 30 Minutorum.  
 12. 37. Apparuit phasis decrescens eclipsis tertia.

Spectatæ

Speſtatae etiam ſunt eodem tempore maculae in diſco Solis decem.

Ceterum Lunae diſcus ſub Sole, peripheriam accurate terminatam, abſque ulla inaequalitate, necnon faciem nigerrimam oſtendit. Nullum quoque Armoſphaerae orbi Lunae inſidentis veſtigium potuit deprehendi.

Aberravit calculus, ex Tabulis *Ludovicianis* deductus, quoad magnitudinem & tempus ſummæ Eclipſeos. Magnitudo enim prædicebatur 2 digitorum, 20 minutorum; Medium h. 12. m. 5.

---

4. Defectus Solis, *obſervatus e ſpecula Bononiensis Scientiarum Inſtituti die 15 Auguſti M.DCC.XXXVIII. mane, referente Eufthachio Manfredio ejusdem inſtituti Aſtronomo, & R. S. Lond. S.*

CUM Solis diſcus per hoſce dies maculis pluribus ſcateret, ipſo mane inſtantis Eclipſeos circiter horam 21. 30 poſt meridiem, *Eufthachius Zanottus, Phil. Doct. Math. Profeſſor publicus, Collega meus*, ope micrometri aptati tubo pedum 8, præcipuarum poſitum inveſtigavit, quæ præſertim Australem Solis partem, (qua parte Luna ſubitura erat) obſidebant; omnes enim deſcribi neque ad rem attinebat, neque per ſpectatorum turbas licuit. Eas maculas, quarum loca deſignare potuit, ſubjectum ſchema exhibet.

Initium deliquii non perfenſi ante horam 22. 52. 25 poſt meridiem, licet & ego tubo pedum undecim, & alii tubis aliis Solis margines diu perluſtrâſſent. Opinor tamen ipſum Luminarium contactum minuto ſaltem maturius accidiffe, quam animadverterim; quod ipſum a ſuccedentibus phaſibus confirmari videtur.

Digiti Ecliptici per circulos in tabella de more exaratos, digitorum vero partes æſtimatione definitæ ſunt. Teſcopium erat pedum 6. Imago unciarum 2, aut circiter. Phaſes emerſionis phaſibus immerſionis certiores ſunt multis de cauſis.

### Immerſionis phaſes.

Temp. ver.

h ' "

23. o. 10 Defectus unius digiti

11. 20 dig. 2

23. 56 dig. 3

35. 14 dig. 4 dub.

45. 14 dig. 4  $\frac{1}{3}$

47. 6 dig. 4  $\frac{1}{2}$

51. 14 dig. 4  $\frac{2}{3}$

55. 14 dig. 4  $\frac{3}{4}$

58. 14 dig. 4  $\frac{4}{5}$

o. 1. 46 dig. 4  $\frac{4}{5}$

Finis Eclipſeos Tubo pedum

undecim . . . . .

Tubo pedum octo

} hor. 1. 18. 1

} hor. 1. 18. 2

### Emerſionis phaſes.

Temp. ver.

h ' "

o. 4. 14 adhuc dig. 4  $\frac{4}{5}$

18. 5 dig. 4  $\frac{1}{2}$

22. 43 dig. 4  $\frac{2}{3}$

31. 50 dig. 4

39. 13 dig. 3  $\frac{1}{2}$

46. 50 dig. 3

52. 55 dig. 2  $\frac{1}{2}$

57. 31 dig. 2

1. 3. 26 dig. 1  $\frac{1}{2}$

7. 52 dig. 1

1. 13. 4 ſemidigitus

Interea maculæ Solis a Luna obteſtæ ac reſeſtæ notabantur in hunc modum.

Temp. ver.

h ' "

23. 3. 50 Macula *C* Lunam ſubit, tubo pedum 8.  
 21. 3 Macula *A* deliteſcere incipit, tubo pedum undecim.  
 21. 49 Maculæ *A* centrum occultatur.  
 22. 41 Tota ſub Luna immergitur.  
 23. 54 Duarum Macularum ad *B* prior immergi incipit.  
 25. 10 Ejuſdem Maculæ centrum latet.  
 25. 45 Tota abſconditur.  
 26. 24 Duarum ad *B* poſterior centro ſuo Lunæ marginem ſubit. Haſtenus eodem teleſcopio pedum undecim.  
 27. 2 Macula *D* abſcondi incipit tubo pedum 8.  
 23. 31. 2 Tota deliteſcit eodem tubo.  
 O. 31. 45 Macula *A* apparere incipit in ſpecie Solis per tabellam excepta.  
 32. 30 Eadem macula tota cum areola ſua emerſerat tubo pedum undecim.  
 33. 25. Emerſio centri prioris duarum ad *B* eodem tubo.  
 34. 59 Totalis emerſio ejuſdem Maculæ eodem tubo.  
 35. 51. Poſterior duarum ad *B* tota emerſerat, tubo eodem.

Obſervationes tam macularum, quam digitorum eclipticorum habuerunt (præter *Zanottum*) *Franciſcus Vandellius Mutinensis Inſtit. Scient. Profeſſor,*  
*Thomas*

*Thomas Perellus Florentinus, M. D. Joseph. Roverfius, Petronius Matheucius, Jo. Andreas Boldrinus Placentinus, Salvator Oliva Mediolanensis, atque alii.* Omnes ex eodem horologio tempora notârunt, quæ postmodum à meridianis observationibus correctâ consignavimus.

Vigente Eclipsi observavi transitum Lunæ ac Solis per planum semicirculi muralis juxta meridianum suspensi.

Ad definiendum Lunæ transitum, tempus notavi, quo segmentum perexiguum e disco Lunæ in Sole conspicuo filo horizontali telescopii subtensum, a verticali filo bissectum apparuit : tunc enim oportet ipsum Lunæ centrum in verticali extitisse. Transit autem centrum Lunæ ante centrum Solis secundis horariis 34. hoc est hora 23. 59. 26 post meridiem diei 14. Altitudo Meridiana limbi borei Lunæ grad. 59. 36. 15 ; limbi borei Solis 59. 53. 0.

